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Comparing the Circulation of Library Materials Ordered by Faculty and Librarians

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ABSTRACT.

Circulation data for materials received over a two-year period by an undergraduate library were analyzed to determine if faculty members or librarians were more effective selectors. The results indicate differing patterns of use of the materials ordered by the two groups. Circulation is unevenly distributed among the materials ordered by faculty while the usage of librarian ordered materials is more uniform. This could result from the differences in the selection processes between the two groups. At least as informative as comparative data between the two groups is the fact that many materials ordered by both groups never circulated at all. Multiple approaches are needed to build an undergraduate collection which will support the needs of its users.

This study evaluates the selection practices of an undergraduate institution by comparing items ordered by teaching faculty and those ordered by librarians to determine whether faculty-ordered materials or librarian-ordered materials circulate more.

INTRODUCTION AND SETTING

If the purpose of a library collection is to support the needs of its users then the purpose of selection is to buy materials that users need. Presumably, selectors who have the greatest knowledge of users' needs will be the most successful in meeting those needs. Traditionally, libraries have used both faculty and librarians as selectors. Faculty have the subject expertise, a working knowledge of the curriculum and regular contact with students and so are in a good position to assess student needs and to make valuable recommendations for additions to the collection. However, not all faculty participate in ordering so there are likely to be gaps in subject coverage. Librarians may have more time for selection; they have more contact with students of all disciplines and are likely to be more aware of a variety of reviewing tools. On the other hand, they are less likely to be subject experts. The hypothesis of this study is that, if circulation is used as the measure of success, librarians are no less successful in selection than faculty members are.

The institution studied was Millikin University in Decatur, Illinois. Millikin University is a four-year undergraduate institution comprised of four parts: Liberal Arts, the School of Fine Arts, the School of Nursing, and the Tabor School of Business. Millikin's primary emphasis as an undergraduate institution is on teaching. "The primary purpose of the [library] collection will be to meet the classroom objectives of the students and faculty…"[1] Because of this emphasis, the teaching faculty and the librarians share the responsibility of selecting materials for the library.

In fact, approximately 70% of the book budget is allocated to departments for selection. The intent is to purchase materials that will be used.

Data were gathered on materials acquired for the library during the fiscal years 1984-85, and 1985-86. Reference materials, periodicals, gift books, vertical file materials, and curriculum library materials were excluded. Sound recordings purchased for the "browsing" record collection were also excluded since these are selected only by librarians.

Replacements were included but were handled as a separate group. Studies have shown that materials well used in the past tend to continue to be well used.[2] Two of the most common reasons for ordering replacements are that the item is worn and cannot be repaired, or that the item is missing—both indications of use. Although replacements are ordered by librarians, there is no way to know who made the request for the original item. It was decided not to include replacements as part of the librarian samples but to draw a separate sample to see if the number of circulations for replacements differed significantly from that of the other groups.
Music scores, sound recordings, and audiovisual materials were included because they represent a large portion of materials ordered in certain subject areas, nursing and music in particular.

METHODOLOGY

For each of the two years (FY84-85 and FY85-86) librarian orders were separated from departmental faculty orders. The librarian orders were then divided into reference, non-reference, and replacements. Other than these separations, the requests were left in the order in which they had been originally sorted and stored (by year, then within the year by month, and within the month by department).

A total sample size of 304 items of the population was determined by taking a preliminary sample from departmental faculty requests and from the librarian requests for the year 1984-85 and then using a standard statistical formula to determine total sample size. The goal was to choose a sample size large enough to be able to differentiate mean circulations between the faculty and librarian-ordered items at a level of 0.50 circulations with 95% confidence. A sample of 76 (76 = 304/4) was taken from each selector group for each of the two years under study. A separate sample of 25 replacements was drawn for each of the two years.

In gathering data, the call number of the item in question, the number of times it circulated, and the source of ordering information (review, flyer, publishers' catalog, etc.) were recorded. The sample was systematically drawn by counting the number of orders for each category and dividing the total by the sample size needed (76). For faculty orders, 1984-85, every 28th card was sampled; for 1985-86, every 22nd card. For librarian orders and for replacements, for both years, every 4th card was sampled. In all cases the first card of the sample was determined by use of standard random number tables. All items were found to be either charged or on the shelf; there were no items unaccounted for. Any items charged and not returned by a predetermined cut-off date were handled as follows. For each year and each selector group under consideration, charged items were assigned the mean number of circulations of the items which had circulated at least once. For example, an item ordered by

faculty and acquired in 1984-85 was assigned the mean number of circulations (3.44) of items which had circulated at least once for the 1984-85 faculty sample group.

Circulation was defined to mean circulation outside the library. Studies have shown that there is a close correlation between frequency of use inside the library and frequency of use outside.[3] For this study no effort was made to determine in-house use.

In considering circulation, one can examine the circulation record for a particular item and then record whether the item has circulated within a given period of time. Another approach is to count the number of times the item has circulated. Evans used the first method in studying selection practices of large university libraries.[4] Bingham replicated Evans' study except that he took into account multiple circulations.[5] Their results were contradictory. Evans concluded that librarian-ordered materials circulate more frequently than faculty-ordered do; Bingham that faculty-ordered materials circulate more. The considering of multiple circulations is the principal focus of this study. Undergraduates, especially during their first two years of study, are guided to the same kinds of materials. Multiple circulations will reflect this characteristic of undergraduate study more accurately than recording only whether or not the item has ever circulated. However, in order to determine if Bingham's and Evans' different approaches yield significantly different results when used on the same data, the data were also examined in light of whether or not the item circulated at all.

The data collected using both approaches are summarized in Tables 1 and 2.

ANALYSIS OF DATA

In analyzing the data for 1984-85 and 1985-86 separately, the evidence is not conclusive that librarian-ordered materials circulate more often than do faculty-ordered materials. The null hypothesis is that no difference exists in the mean number of circulations. For 1984-85 the two-tailed significance level is 37%. That is, if the null hypothesis is true, 37% of the samples drawn would have a difference in circulation equal to or larger than the difference (2.83 - 2.40 = 0.43) obtained in the sample described above. Thus, the sample provides no strong evidence that the null hypothesis should be rejected. For 1985-86 the difference is more significant; the significance level is 19%. Combining the two years the level of significance is 11%. This may be considered suggestive, but it is still not within the generally accepted 5% range for concluding significance.

In comparing the data, several observations can be made. For items ordered by librarians, the number of circulations is spread out between 0 and 13 circulations (per item) for 1984-85, and 0 and 9 circulations for 1985-86. Fewer items circulated at the upper end of the range, but most numbers in the circulation range were represented by at least one item. There were some that had circulated once, some twice, some 3 times, and so on, with few gaps. This indicates a consistency in the popularity of materials ordered by librarians. In contrast, 99% of faculty-ordered items circulated between 0 and 9 times in 1984-85, and 1% (one item) circulated 15 times. In 1985-86, the faculty data are even more skewed. Ninety-nine percent of the items

circulated between 0 and 6 times, and 1% (one item) circulated 18 times—this is 13 standard deviations from the mean of the other items. (See Figures 1 and 2.)

Table 1

MEAN NUMBER OF CIRCULATIONS

	1984-85	1985-86	Both years
FACULTY ORDERED	(n = 76)	(n = 76)	(n = 152)
Total circulations*	182.32	103.62	285.94
Mean	2.40	1.36	1.88
LIBRARIAN ORDERED	(n = 76)	(n = 76)	(n = 152)
Total circulations*	214.96	137.50	352.46
Mean	2.83	1.81	2.32

*Decimal fractions result from assigning charged items the mean number of circulations of items which had circulated at least once.

If one could discount the one item that circulated 18 times in 1985-86, the difference between the two groups would be very significant, at approximately the 2% level. For both years it took just one popular item to raise the mean circulation for faculty to the point at which the difference between the two groups of selectors was not significant. On the other hand, one would assume in a random sample that the one item which circulated 18 times is indicative of 1% of all faculty orders. That 1% may be the element of the data which reflects the circulation of materials ordered by faculty and are then required for classes. To discount this would bias the results against the faculty-ordered materials.

The uneven distribution of the number of circulations may also reflect the selection procedures of the faculty. Thirty-four percent of all faculty requests originated from flyers and publishers' catalogs; 45% from reviewing sources. (The sources for the remainder of the items are unknown.) In contrast, only 4% of librarian orders originated from flyers or catalogs, and 87% came from reviewing sources. The reviewing sources may show more consistency in the kinds and quality of materials covered than do the advertisements of publishers.

Table 3

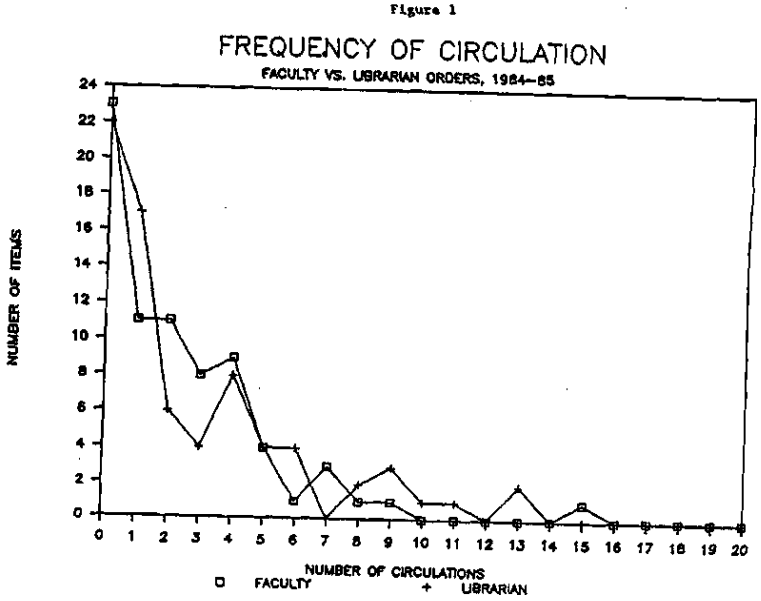
REPLACEMENTS COMPARED WITH LIBRARIAN ORDERS

MEAN NUMBER OF CIRCULATIONS

	1984-85	1985-86	Both years
LIBRARIAN ORDERED	(n = 76)	(n = 76)	(n = 152)
Total circulations*	214.96	137.50	352.46
Mean	2.83	1.81	2.32
REPLACEMENTS	(n = 25)	(n = 25)	(n = 50)
Total circulations*	34.00	81.76	88.76
Mean	1.36	2.07	1.72

*Decimal fractions result from assigning charged items the mean number of circulations of items which had circulated at least once.

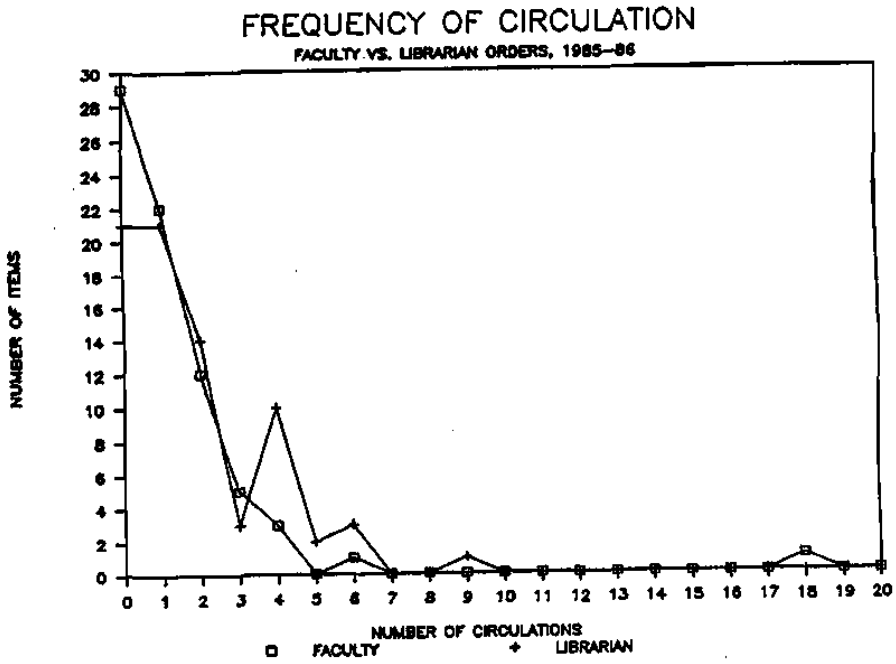
Figure 1



In considering the data from the standpoint of whether the items have circulated or not circulated rather than counting multiple circulations, the difference between the two groups of selectors is still not great. The biggest difference occurs in the year 1985-86, when the significance level is 13%, not enough to be conclusive. The fact that the level of significance is 13% in using this method as opposed to 19% when using multiple circulations is explained by

the fact that counting only a single circulation fails to consider the wide variations between the number of times items are circulated. The one item in the 1984-85 faculty data that circulated 15 times and the one item in the 1985-86 data that circulated 18 times are discounted.

Figure 2



More informative in this study than which materials (faculty-ordered or librarian-ordered) circulated most often is the fact that in 1984-85, 30% of the materials ordered by both groups never circulated at all. In 1985-86, 33% (38% of the faculty and 28% of the librarian orders) never circulated. These figures are somewhat lower than those most often quoted in the literature of librarianship.[6] Clearly, the items involved should be examined to see if there are similarities in the kinds of materials, the sources used for selection, or any other characteristic that might shed light on why they are not being used.

A comparison of replacements with the sample of items ordered by librarians produced some surprises. It was expected that replacements, because of popularity of the books which were being replaced, would circulate more frequently than do other items. In 1984-85 the mean number of circulations for librarian-ordered materials was 2.83, more than twice the mean of 1.36 for replacements. However, in 1985-86 the means were quite close: 1.81 for librarian orders and 2.07 for replacements. It is also interesting that the circulation mean for the replacements ordered in 1985-86 is higher than the mean for replacements ordered the year before (see Table 3).

In both years the classification numbers of the materials acquired cover the entire range of the library of Congress classification system; there appears to be no concentration of subject matter. Much time is devoted by the library staff in evaluating items being considered for replacement. For instance, if it is necessary to acquire items through out-of-print dealers, high purchase prices may have to be given attention. It would be worthwhile to examine replacements further to see if it can be determined what kinds of titles circulate. Why did replacements not circulate as frequently as expected? Is it because 'newer' titles capture the public eye? At Millikin all newly purchased items, including replacements, are shelved for a month in call number order on 'new book' shelves so that both groups are equally 'advertised' by the library. Over time will replacements circulate more? More data are needed in order to draw conclusions.

Table 3

REPLACEMENTS COMPARED WITH LIBRARIAN ORDERS

MEAN NUMBER OF CIRCULATIONS

	1984-85	1985-86	Both years
LIBRARIAN ORDERED	(n = 76)	(n = 76)	(n = 152)
Total circulations*	214.96	137.90	352.46
Mean	2.83	1.81	2.32
REPLACEMENTS	(n = 25)	(n = 25)	(n = 50)
Total circulations*	34.00	51.76	85.76
Mean	1.36	2.07	1.72

*Decimal fractions result from assigning charged items the mean number of circulations of items which had circulated at least once.

CONCLUSIONS

The data described indicate, though not conclusively, that in a college library, librarian-selected materials will circulate more frequently than do faculty-ordered materials. The question needs further study. Because the differences between the two selector groups increased in significance when the data for both years were combined, increasing the number of years studied might give a clearer picture of the differences between the two groups.

Evaluation of selection processes is important because through these processes library collections are built. Undergraduate libraries are not depositories for research materials; their collections are intended to be used. Libraries in general, and undergraduate libraries in particular,

cannot afford to have collections which are largely unused. Library administrators need to look carefully at the selection process from the standpoint of identifying those parts of the process that are most effective in supplying materials that meet users' needs and then modifying practices that are less successful. For example, a comparison of the number of circulations of materials ordered from different reviewing sources might indicate which sources are most likely to recommend items that will be used. Vidor and Futas, in a study of circulation of faculty and librarian ordered business books, include circulation statistics for books reviewed in popular business periodicals. More than 88% of the reviewed books sampled for 1977 had circulated at least once, and all of the reviewed books sampled for 1983 had circulated.[7]

The library may also decide to undertake an 'awareness' campaign to promote the use of little used materials among its patrons. A consequence of this study might be to consider allocating a larger portion of the general book budget to librarian-orders, based on the observation that the circulation of librarian-ordered materials is more consistently distributed among all the materials which librarians ordered than is the circulation of materials ordered by faculty.

This study has pointed out some differences between the processes of faculty and librarian selector groups, but whether or not those processes produce significantly different numbers of circulations is not conclusive. More data are needed. It may be that the approaches of both selector groups, faculty and librarians, are needed to build an undergraduate collection which will support the needs of its users.

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